

[0003]

IN THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-5. (Cancelled)

6. (currently amended) A process for laser beam welding a plate, with pre- and/or post- thermal treatment in the area of the weld seam, with a laser beam with substantially constant output for both the welding and thermal treatment, comprising

welding a surface of the plate to form a weld seam, and carrying out a thermal treatment by guiding with said laser beam over said surface prior to and/or after said welding,

wherein said welding and thermal treatment are separated timewise from each other in such a manner that the temperature reduction of the respective illuminated surface from the point in time of the first illumination to the point of the subsequent illumination is less than 50%, and

wherein during the thermal treatment the laser energy input, based on the illuminated surface area and time, is adjusted by defocusing the laser beam and/or increasing the rate of advance in such a manner that the side of the existing or to-be-formed weld seam opposite to the laser beam is warmed by at least 10°C.

7. (previously presented) The process according to Claim 6, wherein the laser beam is guided along the surface via a scanner device.

8. (previously presented) The process according to Claim 6, wherein the laser beam during thermal treatment is defocused in such a manner that its focus is from 2 to 50 mm from the surface of the laser beam facing side of the plate.

9. (previously presented) The process according to Claim 8, wherein said focus is approximately 20 mm from the surface of the laser beam facing side of the plate.

10. (previously presented) The process according to Claim 6, wherein during the thermal treatment the laser beam is guided in such a manner that a transverse movement component is superimposed over its main direction of advance.

11. (previously presented) The process according to Claim 10, wherein said transverse movement component is a circular movement component.

12. (previously presented) The process according to Claim 6, wherein welding and thermal treatment occur alternately in the manner of a step seam.